

**AMENDMENTS TO THE SPECIFICATION**

Please replace paragraph [0051] with the following amended paragraph:

[0051] In one approach, a hybridoma is produced by fusing a suitable immortal cell line (e.g., a myeloma cell line) such as, but not limited to, Sp2/0, Sp2/0-AG14, P3/NS1/Ag4-1, P3X63Ag8.653, MCP-11, S-194, or the like, or heteromyelomas, fusion products thereof, or any cell or fusion cell derived therefrom, or any other suitable cell line as known in the art. See, e.g., ~~www.atcc.org, www.lifetech.com, and the like~~, with antibody producing cells, such as, but not limited to, isolated or cloned spleen, peripheral blood, lymph, tonsil, or other immune or B cell containing cells, or any other cells expressing heavy or light chain constant or variable or framework or CDR sequences, either as endogenous or heterologous nucleic acid, as recombinant or endogenous, viral, bacterial, algal, prokaryotic, amphibian, insect, reptilian, fish, mammalian, rodent, equine, ovine, goat, sheep, primate, eukaryotic, genomic DNA, cDNA, rDNA, mitochondrial DNA or RNA, chloroplast DNA or RNA, hnRNA, mRNA, tRNA, single, double or triple stranded, hybridized, and the like or any combination thereof. See, e.g., Ausubel, *supra*, and Colligan, Immunology, *supra*, Chapter 2, entirely incorporated herein by reference.

Please replace paragraph [0054] with the following amended paragraph:

[0054] Methods for engineering or humanizing non-human or human antibodies can also be used and are well known in the art. Generally, a humanized or engineered antibody has one or more amino acid residues from a source which is non-human, e.g., but not limited to, mouse, rat, rabbit, non-human primate or other mammal. These human amino acid residues are often referred to as "import" residues, which are typically taken from an "import" variable, constant or other domain of a known human sequence. Known human Ig sequences are disclosed, e.g., ~~www.ncbi.nlm.nih.gov/entrez/query.fcgi; www.atcc.org/phage/hdb.html; www.sciquest.com/; www.abcam.com/; www.antibodyresource.com/onlinecomp.html; www.public.iastate.edu/pedro/research\_tools.html; www.mgen.uniheidelberg.de/SD/IT/IT.html; www.whfree man.com/immunology/CH05/kuby05.htm; www.library.thinkquest.org/12429/Immune/~~

~~[Antibody.html](#); [www.hhmi.org/grants/lectures/1996/vlab/](#); [www.path.cam.ac.uk/mre7/mikeimages.html](#); [www.antibodyresource.com/](#); [mcb.harvard.edu/BioLinks/Immunology.html](#); [www.immunologylink.com/](#); [pathbox.wustl.edu/hcenter/index.html](#); [www.biotech.ufl.edu/hel/](#); [www.pebio.com/pa/340913/340913.html](#); [www.nal.usda.gov/awic/pubs/antibody/](#); [www.mchime.u.ac.jp/yasuhito/Elisa.html](#); [www.biodesign.com/table.asp](#); [www.icnet.uk/axp/faes/davies/links.html](#); [www.biotech.ufl.edu/fec1/protocol.html](#); [www.isaenet.org/sites\\_geo.html](#); [aximt1.imt.uni-marburg.de/rek/AEPStart.html](#); [baserv.uci.kun.nl/jraats/links1.html](#); [www.recab.uni-hd.de/immuno.bme.nwu.edu/](#); [www.mrcpe.cam.ac.uk/imtdoc/public/INTRO.html](#); [www.ibt.unam.mx/vir/V\\_mice.html](#); [imgt.cnuse.fr:8104/](#); [www.biochem.ucl.ac.uk/martin/abs/index.html](#); [antibody.bath.ac.uk/](#); [abgen.cvm.tamu.edu/lab/wwwabgen.html](#); [www.unizh.ch/honegger/AHOseminar/Slide01.html](#); [www.cryst.bbk.ac.uk/ubcg07s/](#); [www.nimr.mrc.ac.uk/CC/ccaewg/ccaewg.htm](#); [www.path.cam.ac.uk/mre7/humanisation/TAHHP.html](#); [www.ibt.unam.mx/vir/structure/stat\\_aim.html](#); [www.bio.sci.missouri.edu/smithgp/index.html](#); [www.cryt.bio.cam.ac.uk/fmolina/Webpages/Pept/spottech.html](#); [www.jerini.de/fr\\_products.htm](#); [www.patents.ibm.com/ibm.html](#); Kabat et al., Sequences of Proteins of Immunological Interest, U.S. Dept. Health (1983), each which is entirely incorporated herein by reference.~~

Please replace paragraphs [0083] and [0084] with the following amended paragraphs:

[0083] Illustrative of cell cultures useful for the production of the antibodies, specified portions or variants thereof, are mammalian cells. Mammalian cell systems often will be in the form of monolayers of cells although mammalian cell suspensions or bioreactors can also be used. A number of suitable host cell lines capable of expressing intact glycosylated proteins have been developed in the art, and include the COS-1 (e.g., ATCC CRL 1650), COS-7 (e.g., ATCC CRL-1651), HEK293, BHK21 (e.g., ATCC CRL-10), CHO (e.g., ATCC CRL 1610) and BSC-1 (e.g., ATCC CRL-26) cell lines, Cos-7 cells, CHO cells, hep G2 cells, P3X63Ag8.653, SP2/0-Ag14, 293 cells, HeLa cells and the like, which are readily available from, for example, American Type Culture Collection, Manassas, Va ([www.atcc.org](#)). In one embodiment, host cells include cells of lymphoid origin such as myeloma and lymphoma cells.

[0084] Expression vectors for these cells can include one or more of the following expression control sequences, such as, but not limited to, an origin of replication; a promoter (e.g., late or

early SV40 promoters, the CMV promoter (US Patent Nos. 5,168,062 and 5,385,839), an HSV tk promoter, a pgk (phosphoglycerate kinase) promoter, an EF-1 alpha promoter (US Patent No. 5,266,491), at least one human immunoglobulin promoter; an enhancer, and/or processing information sites, such as ribosome binding sites, RNA splice sites, polyadenylation sites (e.g., an SV40 large T Ag poly A addition site), and transcriptional terminator sequences. See, e.g., Ausubel et al., *supra*; Sambrook et al., *supra*. Other cells useful for production of nucleic acids or proteins of the present invention are known and/or available, for instance, from the American Type Culture Collection Catalogue of Cell Lines and Hybridomas (~~www.atcc.org~~) or other known or commercial sources.

Please replace paragraph [0128] with the following amended paragraph:

[0128] Recognized devices comprising these single vial systems include those pen-injector devices for delivery of a solution such as BD Pens, BD Autojector<sup>®</sup>, Humaject<sup>®</sup>, NovoPen<sup>®</sup>, B-D<sup>®</sup>Pen, AutoPen<sup>®</sup>, and OptiPen<sup>®</sup>, GenotropinPen<sup>®</sup>, Genotronorm Pen<sup>®</sup>, Humatro Pen<sup>®</sup>, Reco-Pen<sup>®</sup>, Roferon Pen<sup>®</sup>, Biojector<sup>®</sup>, iject<sup>®</sup>, J-tip Needle-Free Injector<sup>®</sup>, Intraject<sup>®</sup>, Medi-Ject<sup>®</sup>, e.g., as made or developed by Becton Dickensen (Franklin Lakes, NJ, ~~www.bectondickenson.com~~), Disetronic (Burgdorf, Switzerland, ~~www.disetronic.com~~), Bioject (Portland, Oregon, ~~www.bioject.com~~); National Medical Products, Weston Medical (Peterborough, United Kingdom, ~~www.weston-medical.com~~), and Medi-Ject Corporation (Minneapolis, MN, ~~www.mediject.com~~). Recognized devices comprising a dual vial system include those pen-injector systems for reconstituting a lyophilized drug in a cartridge for delivery of the reconstituted solution such as the HumatroPen<sup>®</sup>.

Please replace paragraph [0137] with the following amended paragraph:

[0137] Cytokines include any known cytokine. See, e.g., ~~www.CopewithCytokines.com~~. Cytokine antagonists include, but are not limited to, any antibody, fragment or mimetic, any soluble receptor, fragment or mimetic, any small molecule antagonist, or any combination thereof.